CONFIDENTIAL

50X1

13 January, 1953

To: [redacted], External Projects Unit
From: [redacted] Analysis and Appraisal Unit
Subject: EC-2A Containers

Ref.: Contract XG-867 with [redacted]

50X1

1. On Jan. 9, this unit received a request to test the production samples of the EC-2A containers.

2. All ten (10) samples received a visual inspection, two (2) were picked at random for a submersion test, and one(1) was cut apart to determine sheet metal thickness, plating thickness, and spot weld diameter. The test results and observations follow.

3. One or two rounded blemishes are present on each container on the narrow side near the top. It appears that the excess coating dripped from here. Whether the"state of the art"accounts for these is a matter of conjecture. (Spec. par. 2.2.2)

The diameters of the spot welds do not meet specifications. These are 3/32 inches rather than 3/16 inches as specified. (Par. 3.5)

The labeling on the packages of dessicant does not strictly conform to specifications. (Par. 10.1.1) (minor point)

The manufacturer's trademark is present on the collapsible tubes of rubber cement. (B.F. Goodrich, Made in Akron, Ohio). Since a tube might be [redacted] this could be an important point. 50X1
(par. 2.1.2)

The dessicant has the manufacturers name printed on the inner bag. (Par. 2.1.2)

There is not sufficient room for the complete RS-6 set and the cans of Koppers #50 Bitumatic sealer. There would be space, however, if the Bitumastic were supplied in foil containers as specified. (Par. 10.3)

Two burial containers provide sufficient space for:

(1) One RS-6 set complete with bag of accessories.
(2) Additional space for xtals and an instruction manual.
(3) Additional space in each container for a set of locking channels, a tube of rubber sealer, and a package of dessicant.

TESTS:

SUBMERSION:

Two containers were closed and submerged in two (2) feet of water for twenty one (21) hours. Neither can leaked, nor did a humidity indicator placed in each before submersion indicate that a substantial change in humidity had taken place.

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TESTS: (Cont.)

RUBBER INNER LINER:

A generous amount of rubber cement was applied to the lips of the rubber bag and allowed to dry 'till it reached the tacky state. The lips were then compressed between two boards with three (3) "C" clamps for seventeen (17) hours. This operation resulted in a neat, air-tight, waterproof seal. However when allowed to stand for one (1) hour, the seal opened off its own accord.

PLATING THICKNESS:

The thickness of a random sample taken from the side of one of the containers varied from 0.054 to 0.059 inches, and averaged 0.0559 inches. This figure includes the sheet steel and a coating of zinc on each side. When the zinc was melted away, the sample measured 0.051 to 0.052 inches. The plating would therefore amount to 0.0045 to 0.005 inches total, or 0.002 to 0.0025 inches on each side. Specifications state, (par. 2.2.2) " A minimum of three ounces of pure zinc per square foot of area shall be applied to each side of the steel." By volumetric-density calculation, this would amount to 0.00504 inches on each face, or about twice as much as is on the samples.